

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,878,973 B2  
DATED : April 12, 2005  
INVENTOR(S) : Christopher Haydn Lowery and Troy Trottier

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Delete Title page illustrating figure, and substitute therefor new Title page illustrating figure; (attached).

Delete drawing sheets 1-2, and substitute therefor drawing sheet 1, with the attached sheet.

Signed and Sealed this

Eleventh Day of October, 2005

A handwritten signature in black ink, reading "Jon W. Dudas". The signature is stylized, with a large loop for the "J" and a distinct "Dudas" at the end.

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JON W. DUDAS  
*Director of the United States Patent and Trademark Office*

(12) **United States Patent**  
Lowery et al.

(10) Patent No.: **US 6,878,973 B2**  
(45) Date of Patent: **Apr. 12, 2005**

(54) **REDUCTION OF CONTAMINATION OF  
LIGHT EMITTING DEVICES**

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(\*) Notice: Subject to any disclaimer, the term of this  
patent is extended or adjusted under 35  
U.S.C. 154(b) by 134 days.

(21) Appl. No.: **09/938,407**

(22) Filed: **Aug. 23, 2001**

(65) **Prior Publication Data**

US 2003/0071568 A1 Apr. 17, 2003

(51) Int. Cl.<sup>7</sup> ..... **H01L 33/00; H01L 23/29**

(52) U.S. Cl. .... **257/100; 257/98; 257/99;**  
**257/789; 257/795**

(58) Field of Search ..... **257/98-100, 729,**  
**257/753, 788, 789, 791, 795; 438/26, 28,**  
**29, 34-35**

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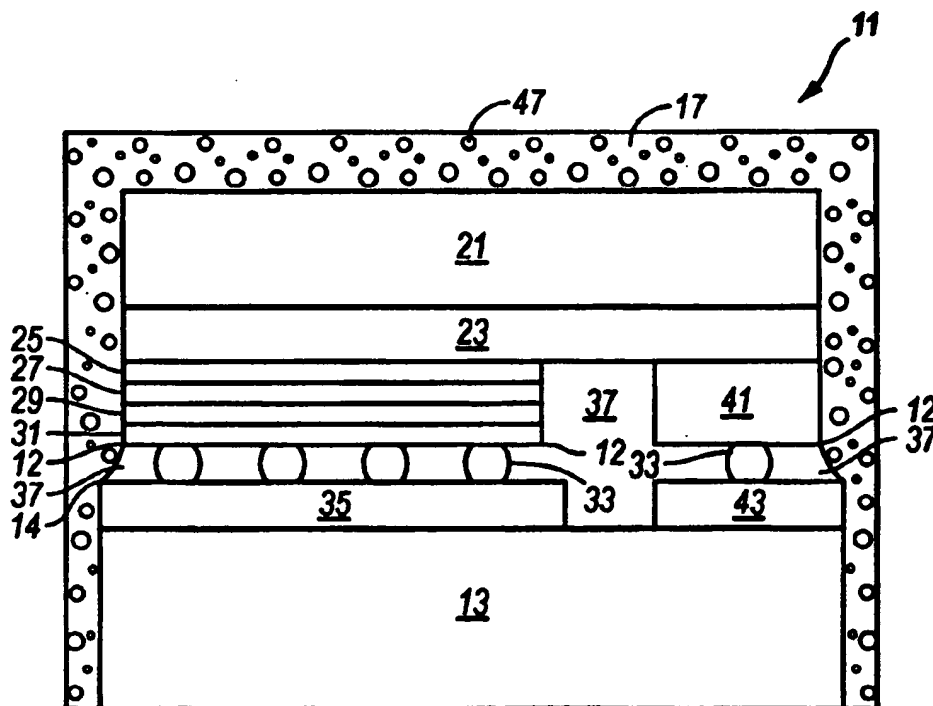
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(57) **ABSTRACT**

A light emitting device and a method of making the same are provided. The light emitting device includes a light emitting diode and a submount. A phosphor material is disposed around at least a portion of the light emitting diode. An underfill is disposed between a first surface of the light emitting diode and a first surface of the submount. The underfill reduces contamination of the light emitting diode by the phosphor material.

**36 Claims, 2 Drawing Sheets**



U.S. Patent

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Sheet 1 of 1

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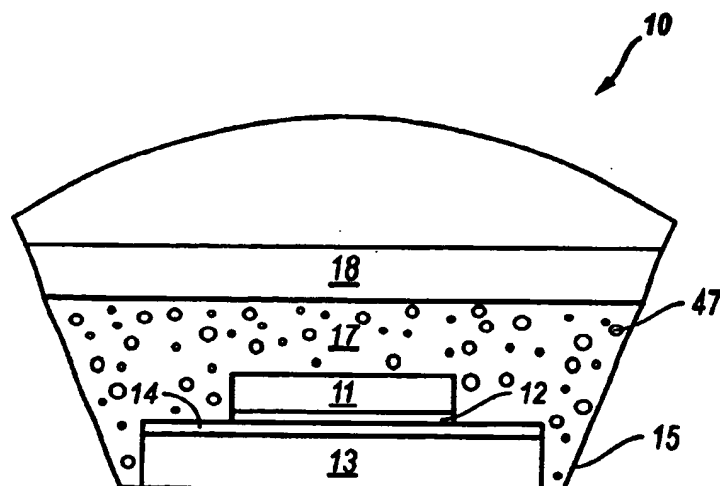


FIG. 1

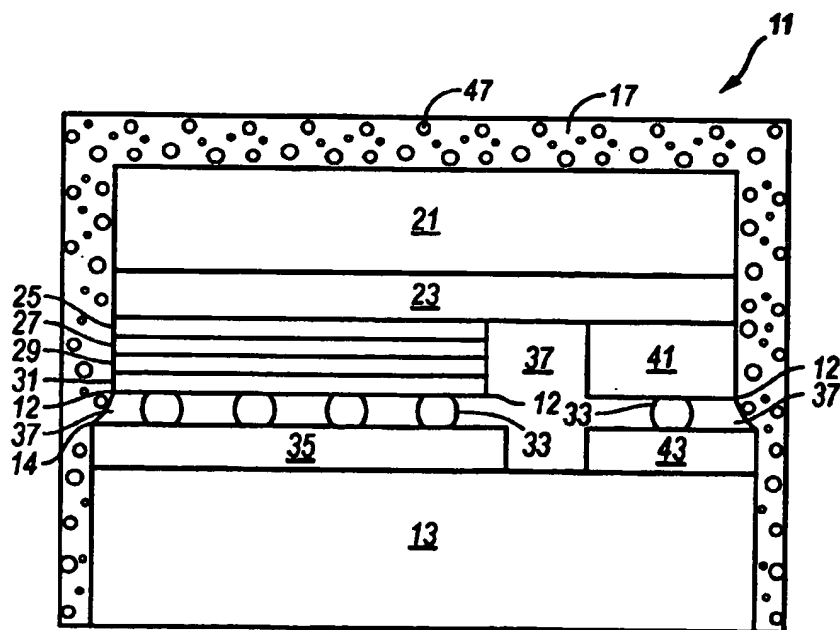


FIG. 2